

WHAT IS CLAIMED IS:

- 1 1. A bar coding method, comprising:
2 generating a corroborative signed message from information to be encoded;
3 and
4 modulating a base image with a graphical encoding of the signed message to
5 produce a marked image.
- 1 2. The method of claim 1, wherein generating the signed message
2 comprises producing a cryptographic hash from the information to be encoded.
- 1 3. The method of claim 2, wherein generating the signed message
2 comprises encrypting the cryptographic hash to produce a digital signature.
- 1 4. The method of claim 3, wherein the cryptographic hash is encrypted
2 with a private key.
- 1 5. The method of claim 3, wherein generating the signed message
2 comprises concatenating the information to be encoded and the digital signature.
- 1 6. The method of claim 1, wherein the signed message includes a public
2 key certificate.
- 1 7. The method of claim 1, wherein the base image includes an image of a
2 handwritten signature.
- 1 8. The method of claim 7, wherein modulating the base image comprises
2 vectorizing the handwritten signature image.
- 1 9. The method of claim 8, further comprising obtaining a set of base
2 control points for the vectorized handwritten signature image, and encoding the
3 information by displacing the base control points to obtain a marked set of control
4 points from which the marked image is produced.
- 1 10. The method of claim 1, further comprising extracting the signed
2 message from the marked image.

1 11. The method of claim 10, wherein the signed message is extracted from
2 the marked image based upon a comparison of the marked image and the base
3 image.

1 12. The method of claim 10, further comprising decoding the extracted
2 signed message to produce a decoded message.

1 13. The method of claim 12, further comprising extracting from the
2 decoded message an encrypted original cryptographic hash and the encoded
3 information.

1 14. The method of claim 13, further comprising decrypting the encrypted
2 original cryptographic hash with a public key.

1 15. The method of claim 14, further comprising authenticating the
2 extracted information by producing a new cryptographic hash from the extracted
3 information, and comparing the new cryptographic hash with the original
4 cryptographic hash.

1 16. A bar coding system, comprising an encoder configured to:
2 generate a corroborative signed message from information to be encoded; and
3 modulate a base image with a graphical encoding of the signed message to
4 produce a marked image.

1 17. A bar coding method, comprising:
2 extracting a signed message from a marked image based upon a comparison
3 of the marked image and a base image;
4 decoding the extracted signed message to produce a decoded message; and
5 extracting from the decoded message information encoded in the marked
6 image.

1 18. The method of claim 17, further comprising:
2 extracting an encrypted original cryptographic hash from the decrypted
3 message;

4 decrypting the encrypted original cryptographic hash with a public key; and
5 authenticating the extracted information by producing a new cryptographic
6 hash from the extracted information, and comparing the new cryptographic hash
7 with the original cryptographic hash.

1 19. A bar coding system, comprising a decoder configured to:
2 extract a signed message from a marked image based upon a comparison of
3 the marked image and a base image;
4 decode the extracted signed message to produce a decoded message; and
5 extract from the decoded message information encoded in the marked image.

1 20. A computer program residing on a computer-readable medium and
2 comprising computer-readable instructions for causing a computer to:
3 generate a corroborative signed message from information to be encoded; and
4 modulate a base image with a graphical encoding of the signed message to
5 produce a marked image.